

XIII. *Additional Notes on Mr. Distant's Collection of African Locustidæ.* By WILLIAM F. KIRBY, F.L.S., F.E.S.

[Read April 16th, 1902.]

IN my former paper (*antea*, pp. 57-114) I was unable, through illness, to include a few species, chiefly belonging to the genus *Acrotylus*, Fieber, which had been set out shortly before the paper was read; and I have also to add some localities, etc. 16 species are added to the former list in the present paper, half of which are described as new, 5 of these being species of *Acrotylus*. This brings up the total number of species to 141; including 2 new genera and 41 new species. For convenience of reference, I have cited the page on which each genus will be found in the first paper.

TRYXALIDÆ.

Genus ACRIDA, Linn. (p. 61).

11. *Acrida gigantea*, Fuessly.

Hab. TRANSVAAL: Johannesburg (*A. Ross*).

Genus PHLÆOBA, Stål (p. 65).

22. *Phlæoba interlincata*, Walker.

Hab. TRANSVAAL: Johannesburg (*A. Ross*).

Genus PNORISA, Stål (p. 67).

27. *Pnorisa squalus*, Stål.

Hab. TRANSVAAL: Johannesburg (*A. Ross*).

Genus EPACROMIA.

Epacromia, Fischer, Orth. Eur., p. 360 (1853).

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29A. *Epacromia thalassina*.

Gryllus thalassinus, Fabricius, Spec. Ins., i, p. 367, n. 31 (1781).

Epacromia thalassina, Brunner, Prodr. Eur. Orth., p. 146 (1882).

Hab. TRANSVAAL: Eureka, Barberton (*Rendall*); NATAL (*Distant*).

A common species in South Europe, Africa, and many parts of Asia.

Genus CHORTOICETES, Brunner (p. 69).

30. *Chortoicetes prasina*, Walker.

Hab. TRANSVAAL: Johannesburg (*A. Ross*); DELAGOA BAY (*Distant*); NYASALAND: Fort Johnston (*Rendall*).

31A. *Chortoicetes interruptus*, sp. n.

Long. corp. 20-22 millim. ; exp. al. 41-44 millim.

Head reddish-brown, antennæ red, a long reddish stripe below each eye, pointed at the lower end, and another running from the back of each eye over the pronotum, divided by four oblique lines, which do not cross ; cheeks with an oblique yellowish line between two black marks ; abdomen greenish-brown, legs testaceous, hind femora above with transverse black bands, outer area blackish, irregularly marked with pale yellow ; inner area black, interrupted by a pale yellow blotch before the extremity. Tegmina rufo-testaceous, subhyaline towards the tips, and with a longitudinal greenish stripe above and parallel to the inner margin, a row of three or four brown spots, sharply defined, and mostly oval or oblong, on the basal half of the tegmina, intersected by the principal nervure ; beyond these, are several rounder spots, below the nervure. Wings pale greenish hyaline at the base, followed by a rather broad curved blackish band, extending to the hind margin, but distinctly interrupted below the costa ; apical area outside the band clear hyaline.

Hab. TRANSVAAL: Pretoria (*Distant*).

Allied to *C. plena*, Walker, but in addition to the characters above given, the vertex is more pointed in front, and much narrowed above the eyes.

LOCUSTIDÆ.

Genus HUMBE.

Humbe, Bolivar, J. Sci. Lisb., xxx, p. 117 (1882).

Humbella, Saussure, Mém. Soc. Genève, xxviii (9), pp. 50, 105 (1884); xxx (1), pp. 17, 32 (1888).

34A. *Humbe tenuicornis*.

Pachytylus tenuicornis, Schaum, Monatsb. Akad. Berlin, 1853, p. 779; Peters' Reise Mossamb. Zool., v, p. 137, pl. vii A, f. 6 (1862).

Humbella tenuicornis, Saussure, Mém. Soc. Genève, xxviii (9), p. 106 (1884).

Pachytylus (Edaleus) punctifrons, Stål, Öfv. Vet. Akad. Förh., xxxiii (3), p. 50 (1876).

Hab. TRANSVAAL: Pretoria (*Distant*).

A widely-distributed species in East, West, and South Africa.

Genus GASTRIMARGUS, Saussure (p. 71).

37B. *Gastrimargus vitripennis*.

Edaleus vitripennis, Saussure, Mém. Soc. Genève, xxx (i), p. 38 (1888).

Hab. TRANSVAAL: Pretoria (*Distant*).

A widely-distributed species in South and Central Africa, and distinguished by the absence of any dark band on the hind wings.

Genus HETEROPTERNIS, Stål (p. 75).

Page 75, no. 42, line 4 from bottom, for *Heteropternis pudica*, Saussure, read *H. pudica*, Serville.

Genus ACROTYLUS, Fieber (p. 76).

45. *Acrotylus femoralis*, sp. n.

Long. corp. 20-32 millim. ; exp. al. 36-48 millim.

Head and pronotum yellowish-grey, vertex, and some large granulations on the front of the pronotum blackish ; tegmina long, narrow, and pointed, the central area densely reticulated with reddish-brown, the cells between subhyaline towards the borders ; the central

area with complete intercalated nervures. Wings pink, with only the extreme borders brownish subhyaline. Antennæ wanting, legs and pectus very hairy, four front legs yellowish-grey, hind femora with the outer area yellowish-grey dotted with black, the inner area black nearly to the extremity, where a yellow ring separates it from the knee, which is red, bordered with black above and at the side; lower part of femora red. The black stripe on the inside of the femora is marked rather beyond the middle by a double longitudinal row of yellow dots, about four in each row. Hind tibiæ and tarsi yellow on the outside, and red on the inside; tibiæ inside with a black stripe, followed by a yellow ring.

Hab. TRANSVAAL: Pretoria (*Zurtz*).

Described from two damaged specimens. Probably allied to *A. crassus*, Saussure.

45A. *Acrotylus zonatus*, sp. n.

Long. corp. 15 millim. ; exp. al. 34 millim.

Head and thorax brown, rugose and granulated, back of the head varied with black and yellow, antennæ not longer than the head and pronotum, and tipped with black, abdomen yellow, with black blotches on the back and sides, and three rows of black dots below; last ventral segment black and shining; four front legs belted alternately with black and yellow, hind femora yellowish on the outside; black on the inside and on the inner sulcus beneath; on the inside it is interrupted by a yellow band below the knee, preceded by some detached yellow markings; hind tibiæ black, with a tawny belt near the base; hind tarsi tawny. Tegmina rusty brown, with intercalated nervures, and intermediate longitudinal series of brown dots and dashes; two large brown marks, extending nearly across, one at the convexity on the costa near the base, and the other beyond; round the borders are also brown spots alternately with light ones. Wings with the base and inner margin pink; a very broad curved smoky brown band, widening to, and expanding on the costa to the base, but not extending below to the inner margin; and the hind margin subhyaline.

Hab. TRANSVAAL: Pretoria (*Distant*).

A. zonatus agrees with *A. concinnus*, Serville, in the great extent of the brown band on the hind wings, which separates both species from *A. hottentottus*, Saussure; but *A. concinnus* is described as having the hind femora yellow on the inside.

45B. *Acrotylus annulatus*.

Long. corp. 16-18 millim. ; exp. al. 36-42 millim.

Head and thorax rugose and granulated, rufo-testaceous, abdomen reddish, with black markings on the back towards the base, and yellow markings on the sides. Legs reddish, four front legs annulated with brown, hind femora indistinctly spotted with black outside, and black on the inside, with two yellow bands before the extremity, hind tibiae black, with two broad yellow rings, the second broadest, spines black, eight in the outer row, tarsi yellow. Tegmina rosy brown, subhyaline towards the extremity, with numerous intercalated nervures, marked with two large brown shades on the costa, one on the convexity, and the other beyond, and with numerous other smaller indistinct brown and pale spots chiefly along the borders ; between the principal longitudinal nervures runs a series of small long or round brown dots. Wings subhyaline, with the base yellow, and the hind margin very broadly infuscated.

Hab. TRANSVAAL: Pretoria (*Distant*); NATAL: Durban (*Ross*).

Described from five specimens. But for the intercalated nervures, I should have referred this species to *A. apricornis*, Stål ; but this is placed by Stål and Saussure in the other section of the genus. From *A. deustus*, Stål and Saussure (and Thunberg ?), *A. annulatus* is separated by the colour of the legs.

45C. *Acrotylus patruelis*.

Gryllus patruelis, Herrich-Schäffer, Panzer, Faun. Germ. Fasc., 157, pl. xviii (1840).

Acrotylus patruelis, Brunn. Prodr. Eur. Orth., p. 156 (1882);
Sauss., Mém. Soc. Genève, xxviii (9), p. 191 (1884);
xxx, p. 68 (1888).

Ædipoda inficita, Walker, Cat. Derm. Salt., B. M., iv, p. 742,
n. 75 (1870).

Hab. TRANSVAAL: Pretoria (*Distant*); NYASALAND: Fort Johnston (*Rendall*).

A widely-distributed species occurring throughout South Europe, Africa, and Western and Southern Asia eastwards to Ceylon. It is very variable, and the specimen from Pretoria much resembles Walker's types of his *Æ. inficita*, and labelled "Sandwich Islands. Presented by Captain Beechey"; but they are probably from the Canaries, like

some other *Orthoptera* in the British Museum bearing the same label.

45D. *Acrotylus furcifer*.

Acrotylus furcifer, Saussure, Mém. Soc. Genève, xxx (i), p. 69 (1888).

Hab. TRANSVAAL: Barberton (*Rendall*).

A single specimen, which I refer to this species with some hesitation, as the description is not sufficiently precise.

45E. *Acrotylus flavescens*.

Acrotylus flavescens, Stål, Rec. Orth., i, p. 135 (1873).

Acrotylus angulatus, Stål, Öfv. Vet. Akad. Förh., xxxiii (3), p. 52 (1876); Saussure, Mém. Soc. Genève, xxxviii (9), p. 189, n. 5 (1884).

Hab. TRANSVAAL: Pretoria (*Distant*); Ovambo (*angulatus*, Stål); CAPE; CHINA (*flavescens*, Stål).

About 40 specimens. The insect appears to be both very abundant and very local. In one or two specimens the head and thorax are reddish, with the characteristic black markings more or less obliterated.

The two names referred to above appear to me to relate to the same species.

45F. *Acrotylus saltator*, sp. n.

Long. corp. 15 millim.; exp. al. 44 millim.

Head and thorax brown above, yellow on the sides, with a black triangular mark expanding behind each eye, and meeting on the back at the principal suture; below it another black mark curves back from the middle of the cheek to the principal suture; hind lobe of pronotum brown, punctured. Intercalary spaces, pectus, and basal half of abdomen above mostly black; abdomen beneath and at the sides yellow; four front legs yellow, indistinctly banded with brown; hind femora yellow on the outside; and above, but with two black transverse bands above, before the knees, which are black, inside and under-surface black, a yellow band before the knee on the inside; hind tibiæ black in the middle, with a yellow band near the base, and the apical fourth red; spines black, nine in the outer row; tarsi red. Tegmina with intercalated nervures, brown, with a quadrate whitish spot near the costa beyond the convexity, and some irregular

scattered whitish spots elsewhere ; wings subhyaline, pale blue, with the apical third brown, the colour diminishing towards the anal angle.

Hab. DELAGOA BAY (*Junod*).

45G. *Acrotylus gillettæ*, sp. n.

Long. corp. 18 millim. ; exp. al. 33 millim.

Tegmina narrow, longer than the wings, rosy grey towards the base, subhyaline on the costa beyond the convexity, and over the outer half of the tegmina, except along the anal area. A row of seven black costal spots, the first five large, the 3rd and 4th not quite touching the costa, the 6th and 7th much smaller, and annular ; there is also a series of smaller brown spots on the inner margin, but receding from it towards the base, and there are also numerous blackish and brown dots towards the base and middle of the tegmina. Wings clear hyaline, the nervures blackish, with some of the intermediate longitudinal nervures pale ; the pale nervure marking the uppermost fold is ornamented towards its extremity with a few brown spots on each side. Pronotum, antennæ, and thorax rosy grey, cheeks whitish, the principal suture on the pronotum is marked with four yellow callosities, two on the back, and two on the sides, a black spot at the base of the wings ; otherwise the intercalary space is rosy grey in the middle, and bluish-grey on the sides ; abdomen testaceous, with two large and transverse bluish spots at the base, bordered above with black. Two front legs rosy grey, indistinctly spotted with brown ; hind femora whitish on the outside, and yellowish-white on the inside, irregularly streaked and spotted with brown ; hind tibiæ pale blue in the middle, yellowish towards the base, and reddish towards the extremity ; tibial spines black, seven in the outer row ; terminal spines very long, reddish, tipped with black.

Hab. NYASALAND : Fort Johnston (*Rendall*) ; SOMALILAND (*Miss F. Gillett*).

Closely allied to *A. quadrimaculatus*, De Haan, which Stål and Saussure place as a synonym of *A. dcustus*, Thunberg. Apart from the identification of Thunberg's insect being very doubtful, *A. quadrimaculatus* and *gillettæ* have no intercalated nervures on the forewings, and therefore belong to a different section to that in which Stål and Saussure have placed their *A. dcustus*. *A. quadrimaculatus* and *A. gillettæ* seem to form a transition between *Acrotylus* and *Sphingonotus*.

CYRTACANTHACRIDÆ.

CYRTACANTHACRINÆ.

Genus CYRTACANTHACRIS, Walker (p. 102).

102. *Cyrtacanthacris variegata*, Walker.

Hab. TRANSVAAL: Johannesburg (*A. Ross*).

CATANTOPINÆ.

Genus COPTACRA.

Coptacra, Stal, Rec. Orth., i, pp. 37, 58 (1877).

108A. *Coptacra paupercula*, sp. n.

Long. corp. 12–15 millim. ; exp. al. 27–31 millim.

Head, pronotum, and tegmina reddish-brown, thickly dusted with grey ; head and pronotum thickly and closely punctured, frontal ridge very broad above between the antennæ, narrower below, hinder orbits narrowly whitish ; antennæ red ; in one specimen the sides of the pronotum are blackish, bordered below with a large subtriangular whitish spot ; wings pale yellow, subhyaline ; four front legs brownish on the outside, and more or less grey on the inside ; hind femora whitish above, with two or three transverse blackish bands ; outer surface wholly whitish, inner surface wholly red ; the sulcus below the white outer area black ; tibiæ and tarsi red, tibial spines tipped with black, eight spines on the outer carina, basal joint of tarsi as long as the third, and considerably expanded.

Hab. TRANSVAAL, Pretoria ; Warm Baths, Waterberg, (*Distant*).

Allied to *C. succinea*, Krauss, but does not quite agree with the description.

Described from two specimens.

Genus ACRIDODERES.

Acridoderes, Bolivar, J. Sci. Lisb. (2), i, p. 163 (1890).

108B. *Acridoderes crassus*.

Acridoderes crassus, Bolivar, l. c. (1890).

Hab. TRANSVAAL: Pretoria (*Distant*); FWAMBO (B. M.); CACONDA, QUANGO (*Bolivar*).

A single specimen only from Pretoria.

108c. *Acridoderes punctatus*, sp. n.

Long. corp. 30 millim. ; exp. al. 73 millim.

Female. Rufo-testaceous, with traces of bright red markings ; a series of irregular white markings extending nearly round the eyes, but especially below, and below these, is a very oblique white streak. Pronotum with very large depressed punctures, and with numerous black spots, interspersed on the sides with some white ones. Hinder lobe granulated and rugose-punctate, slightly produced and truncated behind, and with the terminal carina marked with three black spots on each side. Cerci slender, hooked inwards at the end, subgenital lamina produced into a long broad-pointed keel considerably beyond the abdomen. Legs probably red during life ; four front legs with the joints slightly marked with black ; middle femora indistinctly spotted with black ; hind femora strongly spotted with black on the upper and outer carinæ ; upper surface with traces of two black transverse bands ; outer median area with a double row of broad opposing white stripes ; hind knees marked with black ; spines of hind tibiæ whitish, tipped with black, and spotted with black at the base, six or seven on the outer carina. Prosternal tubercle rather large and rounded. Tegmina subhyaline, very thickly reticulated, the principal longitudinal nervures more or less black, and the rest of the neuriation reddish ; costal area with indistinct brown spots, the rest of the wing marked with irregular double transverse brown lines, rather far apart, and brown rings, etc. Wings greenish hyaline, with brown neuriation, and the tips clouded with brown.

Hab. TRANSVAAL: Rustenburg (*Distant*).

But for the much smaller size of this specimen (especially considering that it is a female), the much narrower wings, more obtuse pronotum, and the broader rounded prosternal spine, which resembles that of *Catantops*, I should have been inclined to refer it to *A. crassus*, Bol. *A. punctatus* has much superficial resemblance to some of Walker's species which I include provisionally in *Catantops*, such as *Acridium adustum* and *Cyrtacanthaeris spissa* of Walker. I should add that the shape of the prosternal tubercle is probably a less important character in *Locustidæ* than has been imagined.

Genus CATANTOPS, Schaum (p. 105).

112. *Catantops decorata*, Gerstaecker.

Hab. TRANSVAAL: Johannesburg (*A. Ross*).

Genus STENOCROBYLUS, Gerstaecker (p. 108).

115. *Stenocrobilus trifasciatus*, Kirb.

Hab. NYASALAND: Fort Johnston (*Rendall*).
Wings pale red, grey towards the costa and tip.

CALLIPTAMINÆ.

Genus EURYPHYMUS, Stål (p. 109).

117. *Euryphymus erythropus*, Thunberg.

Hab. TRANSVAAL: Johannesburg (*A. Ross*).
A very small specimen.

117A. *Euryphymus vylderi*.

Euryphymus vylderi, Stål, Öfvers. Vet. Akad. Förh., xxxiii
(3), p. 42 (1876).

Hab. TRANSVAAL: Barberton (*Rendall*); DAMARALAND
(*Stål*).

I am not quite certain whether I have identified this
species correctly.

Genus CALLIPTAMUS, Serville (p. 109).

118A. *Calliptamus semiroseus*.

Calliptamus semiroseus, Serville, Ins. Orth., p. 692 (1839).

Hab. TRANSVAAL: Pretoria (*Distant*).

A single female specimen, which appears to be referable
to this species. It is remarkable for the unusually short
tegmina.

118B. *Calliptamus minor*.

Caloptenus minor, Walker, Cat. Derm. Salt., iv, p. 699, n.
48 (1870).

Hab. TRANSVAAL: Pretoria (*Distant*), Zoutpansberg
(*Kaessner*).

Both these specimens are females, and differ from the
type, which is a male, by the somewhat shorter and broader
pronotum, and the markings of the wings, which are
subhyaline, brown at the base and along the inner margin,

with a longitudinal row of long brown spots in the discoidal cell, a large brown spot at the end of the cell, and several between this and the apex; but not symmetrical on the two sides. The male has large reticulated brown spots extending over the outer half of the tegmina. *C. semi-roseus*, var. (?) Walker (*nec* Serville), appears to be a variety of *C. minor* in which the wings are tinged with rose-colour at the anal angle; in the type of *C. minor*, and in the two females here referred to that species, the wings are clear hyaline, without any tinge of rose-colour.

119. *Calliptamus tibialis*, Kirb.

Hab. TRANSVAAL: Johannesburg (*A. Ross*).

